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REMARKS

Claims 1-21 are pending in this application. Claims 1-21 were rejected.

Claims Rejections under 35 U.S.C. § 102(e)

Claims 1-3 and 9 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,751,218 to Hagirahim et al. (hereinafter "Hagirahim"). Applicants respectfully disagree for the reasons and explanations set forth below.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." M.P.E.P. § 2131 (Aug. 2001) (*quoting Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). "The identical invention must be shown in as complete detail as is contained in the . . . claim." *Id.* (*quoting Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1051, 1053 (Fed. Cir. 1987)). In addition, "the reference must be enabling and describe the applicant's invention sufficiently to have placed it in possession of a person of ordinary skill in the field of the invention." *In re Paulsen*, 30 F.3d 1475, 1479, 31 USPQ2d 1671, 1673 (Fed. Cir. 1994).

Applicants respectfully submit that claims 1-3 and 9 are not anticipated by Hagirahim for the reasons and explanations set forth below.

With respect to claim 1, Applicants respectfully submit that Hagirahim does teach or suggest all the limitations of claim 1. In particular, Hagirahim does not teach or suggest the following element of claim 1: "determining a transmission range for a broadcast transmission within the system".

Hagirahim discloses ATM connected multicast data transmission to a multiplicity of ATM users over an IP backbone. A controller in the IP backbone translates a pre-stored multicast initiating address into a multiplicity of pre-stored pairs of addresses, each pair composed of a user's ATM destination address and the IP address of the (user) gateway serving the user's ATM destination, then establishing connections between the multicast source ATM address and each of the user's ATM addresses. The multicast ATM cell are encapsulated in IP packets for routing to user gateways. (Col. 1, lines 39-49).

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The Examiner cites Hagirahim as disclosing a transmission range for a broadcast transmission within the system and cites column 3, lines 19-38 and column 4, lines 18-49. However, Hagirahim, at column 3, lines 19-38 states:

Here, the gateway 21 transmits a Multicast Initiating Address (MIA) to the controller 31. The MIA appears in form to the gateway like an ATM destination address, for example, an 800 telephone number. However, in the controller 31 the Multicast Initiating Address, behaves not as an ATM-destination address but like a pointer to the lookup table 51. The latter causes the controller 31 to furnish the IP source gateway with a number of pairs of ATM/IP addresses for that multicast service. Each pair includes an ATM host's (multicast user party 22) destination address and an IP gateway (host gateway) address of the gateway 21 to which a local access 23 connects the ATM host. In addition to the pairs of ATM/IP addresses, the controller 31 also provides the IP source gateway 21 with an IP Multicast Assigned Address to receive data.

The addresses in Hagirahim are pre-entered in the lookup table and thus do not disclose "determining a transmission range for a broadcast transmission within the system".

Similarly, at column 4, lines 18-49 Hagirahim states:

In step S1, a gateway 21, the source gateway, receives an ATM signaling message (SETUP) containing the Multicast Initiating Address (MIA) and the IP Multicast Service Address preferably in the Called Party Subaddress Information Element. The latter is used by the server 27 as the destination address in the IP multicast packets. In step S2, the source gateway terminates the ATM signaling message, converts the message to an intermediate signaling protocol, and transfers the signaling message to the controller 31. . In step S3, the controller 31 provides a translation function for translating the MIA to pairs of IP/ATM addresses by way of the look-up table 51.

The translation function merely provides a means to translate the unsupported ATM addresses into a form suited for transmission over an IP service. Neither the look-up table, nor the translation function discloses "determining a transmission range for a broadcast transmission within the system". Therefore, Applicants respectfully submit that claim 1 is allowable.

Claims 2 and 3 are each allowable as depending directly from an allowable base claim.

Claim 9 is allowable for the same reasons given above for claim 1.

Claims 13 and 15-20 were rejected under § 102(e) as being anticipated by U.S. Patent 6,781,999 to Eyuboglu et al. (hereinafter "Eyuboglu").

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Applicants respectfully submit that claims 13 and 15-20 are not anticipated by Eyuboglu for the reasons and explanations set forth below.

With respect to claim 13, Applicants respectfully submit that Eyuboglu does not teach or suggest all the limitations of claim 13. In particular, Eyuboglu does not teach or suggest the following element of claim 13: "means for compressing the Internet Protocol packet addressed to a multicast address and applying a framing protocol, resulting in a compressed framed packet; means for further encapsulating the compressed framed packet with a routing protocol; means for encapsulating the compressed framed packet according to a multicast Internet Protocol address".

Eyuboglu discloses that when the PDSN receives an IP packet that belongs to a multicast group, it encapsulates it in a Simple Link Layer frame, and sends it over the multicast A10 tunnels to RNCs that serve the members of a particular multicast group. (Col. 9, lines 29-33) Only one encapsulation is mentioned and the reference is silent regarding a routing protocol or compressing the packets. Therefore, Eyuboglu does not disclose "means for compressing the Internet Protocol packet addressed to a multicast address and applying a framing protocol, resulting in a compressed framed packet; means for further encapsulating the compressed framed packet with a routing protocol; means for encapsulating the compressed framed packet according to a multicast Internet Protocol address". Applicants respectfully submit that claim 13 is allowable.

Claim 17 is allowable for the same reasons given above for claim 13. Claims 15, 16, 18 and 19 are each allowable as depending either directly or indirectly from an allowable independent claim.

With respect to claim 20, Applicants respectfully submit that Eyuboglu does not teach or suggest all the limitations of claim 20. In particular, Eyuboglu does not teach or suggest the following element of claim 20: "multicast tree portion". The Examiner cites Col. 9, lines 22-33 as teaching a multicast tree portion. However, the cited reference states:

First, in order to carry multicast traffic between the PDSN and the RNC 124, a **special multicast A10 tunnel 122** is set up for every multicast group that has at least one member served by that RNC. The same PDSN may have multiple A10 tunnels 122, 126 to different RNCs 124, 128 for the same multicast group. When the PDSN receives an IP packet that belongs to a multicast group, it encapsulates it in a Simple Link Layer frame, and sends it over these multicast A10 tunnels to RNCs that serve members of that multicast group. (emphasis added)

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Eyuboglu does not disclose forming a multicast tree portion as disclosed by Applicants. Therefore, Eyuboglu does not disclose a "multicast tree portion". Applicants respectfully submit that claim 20 is allowable.

Claim Rejections under 35 U.S.C. § 103

Claim 4 was rejected as being unpatentable over U.S. Patent 6,751,218 to Hagirahim et al. in view of U.S. Patent 6,781,999 to Eyuboglu et al. This rejection is respectfully traversed.

Applicants submit that the nonobviousness of claim 1 precludes a rejection of claim 4 depending directly therefrom, because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2D 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, Applicants request that the Examiner withdraw the 35 U.S.C. § 103(a) obviousness rejection to dependent claim 4.

Claim 5 was rejected as being unpatentable over U.S. Patent 6,751,218 to Hagirahim et al. in view of U.S. Patent 6,781,999 to Eyuboglu et al., and in further view of U.S. Patent 6,895,216 to Sato et al.

Applicants submit that the nonobviousness of claim 1 precludes a rejection of claim 5 depending directly therefrom, because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2D 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, Applicants request that the Examiner withdraw the 35 U.S.C. § 103(a) obviousness rejection to dependent claim 5.

Claims 6 and 8 were rejected as being unpatentable over European Patent Application EP 1071296 to Leroy et al (hereinafter "Leroy") in view of U.S. Patent 6,788,681 to Hurren et. al (hereinafter "Hurren").

To establish a prima facie case of obviousness, the prior art reference (or references when combined) must teach or suggest all the claim limitations. "The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in Applicants' disclosure." *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

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Applicants respectfully submit that a prima facie case of obviousness has not been established regarding claims 6 and 8 because the prior art cited does not teach or suggest all the claim limitations. Specifically, the cited prior art does not disclose or suggest the limitation "compressing the Internet Protocol packet; applying a framing protocol to produce a compressed framed packet; encapsulating the compressed framed packet with a routing protocol; and encapsulating the compressed framed packet according to a multicast Internet Protocol address for transmission" as found in Applicants' invention.

Leroy discloses a method for sending multi-cast messages across a public and a private network. (Abstract) The gateway node encapsulates the public IP data packet in the private data packet and fills in the destination field with an internet multicast address. (Col. 6, lines 39-45) No mention is made of compression, a routing protocol, or further encapsulation. Therefore, Leroy does not teach or suggest "compressing the Internet Protocol packet; applying a framing protocol to produce a compressed framed packet; encapsulating the compressed framed packet with a routing protocol; and encapsulating the compressed framed packet according to a multicast Internet Protocol address for transmission" as found in Applicants' invention.

Hurren teaches and suggests a method for providing a Virtual Private Network over a connectionless network connecting a plurality of Local Area Networks (LANs). The method and apparatus comprise a unique identifier associated with each VPN and each LAN of the VPN with an interface device connecting the LAN to the connectionless network. (Abstract) Each LAN is associated with a User-Network Interface that forms part of the interface device. (Abstract) Again, no mention is made of compression, applying a framing protocol to produce a compressed framed packet, or further encapsulation. Therefore, Hurren does not teach or suggest "compressing the Internet Protocol packet; applying a framing protocol to produce a compressed framed packet; encapsulating the compressed framed packet with a routing protocol; and encapsulating the compressed framed packet according to a multicast Internet Protocol address for transmission" as found in Applicants' invention.

Applicants further submit that the combination of Leroy and Hurren is improper as the references teach away from the combination. Leroy teaches transmitting multicast messages to mobile stations. Hurren teaches interconnecting multiple networks to create virtual private networks. It would not be logical to combine a method for transmitting to individual mobile

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stations with a method for interconnecting multiple networks. Applicants therefore respectfully request that the rejection of claim 6 be withdrawn.

Claim 8 is allowable as depending directly from an allowable base claim.

Claim 7 was rejected as being unpatentable over European Patent Application EP 1071296 to Leroy et al. in view of U.S. Patent 6,788,681 to Hurren et al. and in further view of U.S. Patent 6,895,216 to Sato et al. (hereinafter "Sato").

The discussions of Leroy and Hurren above also apply to claim 7.

Sato teaches and suggests a method for rendering multicast service with sufficient reception quality to wireless terminals. The wireless terminal decompresses the received multicast information using a decompression algorithm. (Col. 12, lines 12-19) Sato does not teach or suggest "compressing the Internet Protocol packet; applying a framing protocol to produce a compressed framed packet; encapsulating the compressed framed packet with a routing protocol; and encapsulating the compressed framed packet according to a multicast Internet Protocol address for transmission" as found in Applicants' invention. Combining Leroy and Hurren with Sato does not teach or suggest the cited limitation.

Claim 7 is allowable as depending from allowable claim 6 and for the reasons cited above.

Claims 10, 12, 14, and 21 were rejected under 35 U.S.C. § 102(e) as being anticipated by U. S. Patent 6,781,999 to Eyuboglu et al. in view of U.S. Patent 6,801,508 to Lim (hereinafter "Lim"). Applicants believe that the Examiner intended this to be a § 103(a) rejection because the Examiner specifically stated which claim limitations are not found within one of the references.

Applicants respectfully submit that a prima facie case of obviousness has not been established regarding claims 10, 12, 14, and 21 because the prior art cited does not teach or suggest all the claim limitations. Specifically, the cited prior art does not disclose or suggest the limitation "wherein the Internet Protocol packet has been compressed and a framing protocol applied to produce a compressed framed packet, wherein the compressed framed packet has been encapsulated with a routing protocol" as found in Applicants' invention.

The discussion of Eyuboglu, above, applies here. Lim teaches an asynchronous transfer mode packet network and a method for transferring packet data. A virtual circuit is established between a serving radio network controller and a target radio network controller, or between the

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serving radio network controller and a target packet data node. (Abstract) The Examiner cites Lim as teaching that a radio network controller may perform the same functions as a packet control function PCF node. Applicants respectfully submit that neither Eyuboglu nor Lim teaches or suggests the limitation "wherein the Internet Protocol packet has been compressed and a framing protocol applied to produce a compressed framed packet, wherein the compressed framed packet has been encapsulated with a routing protocol" as found in Applicants' invention. Applicants submit that claim 10 is allowable.

Claims 12 and 14 are each allowable as depending either directly or indirectly from an allowable base claim. Claim 14 depends from allowable claim 13 and is allowable for the reasons given above for claim 13.

Claim 21 is allowable for the reasons given above for claim 20 above.

Claim 11 was rejected were rejected under 35 U.S.C. § 102(e) as being anticipated by U. S. Patent 6,781,999 to Eyuboglu et al. in view of U.S. Patent 6,801,508 to Lim and further in view of U.S. Patent 6,895,216 to Sato et al. Applicants believe that the Examiner intended this to be a § 103(a) rejection because the Examiner specifically stated which claim limitations are not found within one of the references.

Claim 11 depends directly from claim 10 and is allowable for the same reasons given above for claim 10.

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REQUEST FOR ALLOWANCE

In view of the foregoing, Applicant submits that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

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By: Roberta A. Young
Roberta A. Young, Reg. No. 53,818
(858) 658-5803

QUALCOMM Incorporated
5775 Morehouse Drive
San Diego, California 92121
Telephone: (858) 658-5787
Facsimile: (858) 658-2502